

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) An image reading apparatus which operates with power supplied from an external power supply under control of an external apparatus and which comprises an image sensing unit for reading an image, and an interface connected to the external apparatus through an interface cable and which transfers an image signal read by the image sensing unit to the external apparatus, the image reading apparatus comprising:

a detector for detecting unplugging of the interface cable on the basis of an electric potential of a predetermined position of the interface; and

a controller for, in response to detection of unplugging of the interface cable during an image reading process controlled by the external apparatus, initializing a mechanical position of the image sensing unit to a state set when the apparatus is powered on, then setting said image reading apparatus in a sleep state with the image reading apparatus being supplied with power from the external power supply, in response to detection of unplugging of the interface cable during an image reading process controlled by the external apparatus, until the communication with the external apparatus restarts,

~~wherein at least one of an internal circuit and mechanical position of the image sensing unit is initialized to a state identical to a state at the time when the apparatus is powered on before or after the apparatus is set to the sleep state, and~~

wherein power from the external power supply is not provided to the image reading apparatus across the interface cable but is provided across a separate cable.

2. (Canceled)

3. (Canceled)

4. (Previously Presented) The apparatus according to claim 1, wherein the image sensing unit comprises:

a light source for irradiating a document with light;

an image sensor for converting light reflected by a document irradiated with light from said light source into an electrical image signal;

a moving unit for moving a relative position between an image of the document and said image sensor; and

a setting unit for stopping power supply to at least one of said light source and said moving unit in the sleep state in accordance with a setup of said controller.

5. (Previously Presented) The apparatus according to claim 1, further comprising an A/D converter for converting the image signal output from the image sensing unit into a digital signal,

wherein the interface transfers the digital image signal converted by said A/D converter to the external apparatus.

6. (Currently Amended) The apparatus according to claim 1, wherein said detector detects unplugging of the interface cable by detecting a change in potential of a power supply line included in the interface cable.

7. (Currently Amended) The apparatus according to claim 1, wherein said detector detects unplugging of the interface cable by detecting a change in a voltage-level of a data line included in the interface cable.

8. (Previously Presented) The apparatus according to claim 1, wherein the interface has a function of allowing to plug/unplug a cable without turning off a power supply of the external apparatus.

9. (Previously Presented) The apparatus according to claim 8, wherein the function of the interface complies with USB or IEEE1394.

10. (Currently Amended) A control method for an image reading apparatus which operates with power supplied from an external power supply under control of an external apparatus and which comprises an image sensing unit for reading an image, and an interface connected to the external apparatus through an interface cable and which transfers an image signal read by the image sensing unit to the external apparatus, the method comprising:

a detection step of detecting unplugging of the interface cable on the basis of an electric potential of a predetermined position of the interface; and

a control step of, in response to detection of unplugging of the interface cable during an image reading process controlled by the external apparatus, initializing a mechanical position of the image sensing unit to a state set when the apparatus is powered on, then setting the image reading apparatus in a sleep state with the image reading apparatus being supplied with power from the external power supply, ~~in response to detection of unplugging of the interface cable during an image reading process controlled by the external apparatus, until the communication with the external apparatus restarts,~~

~~wherein at least one of an internal circuit and mechanical position of the image sensing unit is initialized to a state identical to a state at the time when the apparatus is powered on before or after the apparatus is set to the sleep state, and~~

wherein power from the external power supply is not provided to the image reading apparatus across the interface cable but is provided across a separate cable.

11. (Canceled)

12. (Canceled)

13. (Previously Presented) The method according to claim 10,
further comprising:

an A/D conversion step of converting the image signal output from the image sensing unit into a digital signal; and

a transfer step of transferring the digital image signal converted in the A/D conversion step to the external apparatus.

14. (Currently Amended) The method according to claim 10, wherein the detection step includes a step of detecting unplugging of the interface cable by detecting a change in potential of a power supply line included in the interface cable.

15. (Currently Amended) The method according to claim 10, wherein the detection step includes a step of detecting unplugging of the interface cable by detecting a change in a voltage-level of a data line included in the interface cable.

16. (Previously Presented) The method according to claim 10, wherein the interface has a function of allowing to plug/unplug a cable without turning off a power supply of the external apparatus.

17. (Previously Presented) The method according to claim 16, wherein the function of the interface complies with USB or IEEE1394.

18. (Currently Amended) An image processing system which comprises an image reading apparatus, that operates with power supplied from an external power supply under control of a host apparatus for outputting an image signal read by an image sensing unit to an interface connected to the host apparatus through an interface cable, and the host apparatus for processing the image signal sent from the image reading apparatus via the interface cable,
the image reading apparatus comprising:

a detector for detecting unplugging of the interface cable on the basis of an electric potential of the predetermined position of the interface; and

a controller for, in response to detection of unplugging of the interface cable during an image reading process controlled by the external apparatus, initializing a mechanical position of the image sensing unit to a state set when the apparatus is powered on, then setting said image reading apparatus in a sleep state with the image reading apparatus-being supplied with power from the external power supply, ~~in response to detection of unplugging of the interface cable during an image reading process controlled by the external apparatus, until the communication with the external apparatus restarts,~~

~~wherein at least one of an internal circuit and mechanical position of the image sensing unit is initialized to a state identical to a state at the time when the apparatus is powered on before or after the apparatus is set to the sleep state, and~~

wherein power from the external power supply is not provided to the image reading apparatus across the interface cable but is provided across a separate cable.

19. (Canceled)

20. (Canceled)

21. (Previously Presented) The system according to claim 18, further comprising an A/D converter for converting the image signal output from the image sensing unit into a digital signal,

wherein the interface transfers the digital image signal converted by said A/D converter to the host apparatus.

22. (Currently Amended) The system according to claim 18, wherein said detector detects unplugging of the interface cable by detecting a change in potential of a power supply line included in the interface cable.

23. (Currently Amended) The system according to claim 18, wherein said detector detects unplugging of the interface cable by detecting a change in a voltage-level of a data line included in the interface cable.

24. (Previously Presented) The system according to claim 18, wherein the interface has a function of allowing to plug/unplug a cable without turning off a power supply of the host apparatus.

25. (Previously Presented) The system according to claim 24, wherein the function of the interface complies with USB or IEEE1394.

26. (Currently Amended) A computer-readable medium that stores a program for implementing a control method for an image reading apparatus which operates with power supplied from an external power supply under control of an external apparatus and which comprises an image sensing unit for reading an image, an interface connected to the external apparatus through an interface cable and which transfers an image signal read by the image

sensing unit to the external apparatus, and a detector for detecting unplugging of the interface cable on the basis of an electric potential of a predetermined position of the interface, the medium comprising:

computer readable program code means for, in response to detection of unplugging of the interface cable during an image reading process controlled by the external apparatus, initializing a mechanical position of the image sensing unit to a state set when the apparatus is powered on; and

computer readable program code means for, after initializing the mechanical position of the image sensing unit, setting the image reading apparatus in sleep state with the image reading apparatus being supplied with power from the external power supply, in response to detection of unplugging of the interface cable during an image reading process controlled by the external apparatus, until the communication with the external apparatus restarts,

~~computer readable program code means for setting at least one of an internal circuit and mechanical position of the image sensing unit to a state identical to a state at the time when the apparatus is powered on before or after the apparatus is set to the sleep state,~~

wherein power from the external power supply is not provided to the image reading apparatus across the interface cable but is provided across a separate cable.

27. (Previously Presented) The medium according to claim 26, wherein the interface has a function of allowing to plug/unplug a cable without turning off a power supply of the external apparatus.

28. (Original) The medium according to claim 27, wherein the function of the interface complies with USB or IEEE1394.